Remarks

The final Office Action mailed August 16, 2007 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 22-25 and 40-47 are now pending in this application. Claims 1-21 and 26-39 have been canceled. Claims 22-25 and 40-47 stand rejected.

The rejection of Claims 40-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is respectfully traversed.

Applicants have amended Claims 40-43 to recite a "computer program product" as suggested by the Examiner. Accordingly, Applicants submit that Claims 40-43 are directed to statutory subject matter.

For at least the reasons set forth above, Applicants respectfully request that the Section 101 rejection of Claims 40-43 be withdrawn.

The rejection of Claims 22-25 and 40-47 under 35 U.S.C. § 102(e) as being anticipated by Hsieh et al. (U.S. Patent 6,687,329) (hereinafter referred to as "Hsieh") is respectfully traversed.

Hsieh describes a method for acquiring subsequent image data in a medical diagnostic context based upon analysis of initial image data. The initial image data is processed via a computer aided diagnosis algorithm to determine whether additional image data acquisition is appropriate. In one embodiment, the subsequent acquisition processes are performed on the same imaging system from which the initial image data originated. In an alternative embodiment, the subsequent acquisition processes are performed on a different imaging system. In one embodiment, the imaging systems are of different modalities. In one embodiment, Hsieh describes the subsequent acquisition of image data being performed automatically without operator intervention. In another embodiment, the prescribed subsequent acquisition sequence is outputted by the system for execution upon command of an operator.

Applicants respectfully traverse the assertion on page 3 of the Office Action that Hsieh describes "linking the low resolution data to the high resolution data to facilitate (78 of figure 3) seamlessly displaying a volume rendering of the low resolution data and analysis results of the high resolution data in a single display (80 of figure 3, col. 9, ll. 5-15)." Applicants further submit that Hsieh does not describe or suggest linking low-resolution data to high-resolution data; displaying a volume rendering of the low-resolution data; displaying analysis results of the high-resolution data; and seamlessly toggling between the volume rendering of the low-resolution data and the analysis results of the high-resolution data within a single display. Rather, Applicants submit that Hsieh describes:

> [t]he additional processing at step 76 may also include automatic segmentation, calculation of sizes or volumes of features of interest, and so forth. The additional processing at step 76 may also include automatic selection of optimal parameters used in the reconstruction and produce additional images based on the optimal parameters. If such additional processing is desired, the processing is performed and *a subsequent or additional image data set may be generated* as indicated at step 78. *This image data set may be stored separately for display or review.* The image data set will differ from the original processed data by the subsequent processing programmed at step 76. Following a generation of the additional image at step 78, or if no additional processing is in order at step 76, the procedure advances to step 80 where some or all of the reconstructed images may be presented to physicians or radiologists. (Column 9, lines 1-16) (Emphasis added).

Accordingly, Hsieh describes generating a subsequent or additional image, and storing the image separately for display or review. Applicants submit that a description of generating and storing an additional image is not a description of linking low-resolution data to high-resolution data. Further, Applicants submit that a description of generating and storing an additional image is not a description of displaying a volume rendering of low resolution data and analysis results of high resolution data in a single display. Moreover, Applicants submit that a description of generating and storing an additional image is not a description of seamlessly toggling between a volume rendering of low-resolution data and analysis results of high-resolution data within a single display. For at least these reasons, Applicants submit that Hsieh does not describe the present invention as claimed.

Claim 22 recites a method for a seamless display and analysis of dual resolution image data, wherein the method comprises "reviewing image data of an object at low-resolution...performing a volumetric analysis of at least one feature of interest in the low-resolution image data...substituting high-resolution image data of the at least one feature of interest for the analyzed low-resolution image data without operator intervention...analyzing the high-resolution image data...linking the low-resolution image data to the high-resolution image data...displaying a volume rendering of the low-resolution image data...displaying analysis results of the high-resolution image data...seamlessly toggling between a volume rendering of the low-resolution image data and the analysis results of the high-resolution image data within a single display."

Applicants submit that Hsieh does not describe or suggest a method, as recited in Claim 22. More specifically, Hsieh does not describe or suggest a method including linking low-resolution image data to high-resolution image data; displaying a volume rendering of the low-resolution image data; displaying analysis results of the high-resolution image data; and seamlessly toggling between the volume rendering of the low-resolution image data and the analysis results of the high-resolution image data within a single display. Rather, Hsieh describes generating and storing an additional image. Accordingly, for at least the reasons set forth above, Applicants submit that Claim 22 is patentable over Hsieh.

Claims 23-25 depend directly from independent Claim 22. When the recitations of Claims 23-25 are considered in combination with the recitations of Claim 22, Applicants submit that Claims 23-25 likewise are patentable over Hsieh.

Claim 40 recites a computer program embodied on a computer readable medium for acquiring medical image data, wherein the computer program is configured to "receive low-resolution image data...perform a volumetric analysis of at least one feature of interest in the low-resolution image data...substitute high-resolution image data for analyzed low-resolution image data without operator intervention...analyze the high-resolution image data...link the low-resolution image data to the high-resolution image data...display a volume rendering of the low-resolution image data...display analysis results of the high-resolution image

data...seamlessly toggle between the volume rendering of the low-resolution image data and the analysis results of the high-resolution image data within a single display."

Applicants submit that Hsieh does not describe or suggest a computer program, as recited in Claim 40. More specifically, Hsieh does not describe or suggest a computer program configured to link low-resolution image data to high-resolution image data; display a volume rendering of the low-resolution image data; display analysis results of the high-resolution image data; and seamlessly toggle between the volume rendering of the low-resolution image data and the analysis results of the high-resolution image data within a single display. Rather, Hsieh describes generating and storing an additional image. Accordingly, for at least the reasons set forth above, Applicants submit that Claim 40 is patentable over Hsieh.

Claims 41-43 depend directly from independent Claim 40. When the recitations of Claims 41-43 are considered in combination with the recitations of Claim 40, Applicants submit that Claims 41-43 likewise are patentable over Hsieh.

Claim 44 recites an imaging system comprising "a first image data acquisition system configured to acquire medical images...a computer coupled to the image data acquisition system and configured to...receive low-resolution image data...perform a volumetric analysis of at least one feature of interest in the low-resolution image data...substitute high-resolution image data for the analyzed low-resolution image data without operator intervention...analyze the high-resolution image data link the low-resolution image data to the high-resolution image data...display a volume rendering of the low-resolution image data...display analysis results of the high-resolution image data...seamlessly toggle between the volume rendering of the low-resolution image data and the analysis results of the high-resolution image data within a single display."

Applicants submit that Hsieh does not describe or suggest an imaging system, as recited in Claim 44. More specifically, Hsieh does not describe or suggest an imaging system configured to link low-resolution image data to high-resolution image data; display a volume rendering of the low-resolution image data; display analysis results of the high-resolution

image data; and seamlessly toggle between the volume rendering of the low-resolution image data and the analysis results of the high-resolution image data within a single display. Rather, Hsieh describes generating and storing an additional image. Accordingly, for at least the reasons set forth above, Applicants submit that Claim 44 is patentable over Hsieh.

Claims 45-47 depend directly from independent Claim 44. When the recitations of Claims 45-47 are considered in combination with the recitations of Claim 44, Applicants submit that Claims 45-47 likewise are patentable over Hsieh.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 22-25 and 40-47 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,

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